## REMARKS/ARGUMENTS

Reconsideration is respectfully requested.

**Drawings**

FIGS. 4, 6, 9, and 10-11 are objected to as not being labeled properly. FIGS. 1-11 are objected to for containing lines, numbers, and letters of poor quality. In response, replacement FIGS. 1-3, 4(a), 4(b), 5, 6(a), 6(b), 7-8, 9(a), 9(b), 10(a), 10(b), 11(a), and 11(b) are attached hereto. More specifically, "FIG. 4" and "FIG. 4 continued" have been amended to --FIG. 4(a)-- and FIG. 4(b)--,respectively, in the drawings and in the Specification. Similar amendments have been made with respect to FIGS. 6 and 9-11. Further, the size of the numbers, letters, and reference characters have been amended to measure at least 0.32 cm (or 1/8 inch) in height as required by the Rules. The thickness of the lines also have been increased. By these amendments, the replacement FIGS. 1-3, 4(a), 4(b), 5, 6(a), 6(b), 7-8, 9(a), 9(b), 10(a), 10(b), 11(a), and 11(b) are considered to have overcome all of the drawing objections. Withdrawal of the objection is respectfully requested.

**Claims**

Claims 1-6 are pending in the present application before this amendment. By the present amendment, Claims 1 and 5 have been amended for the formality reasons only. No new matter has been added.

Claims 5-6 stand objected to as being in improper multiple dependent form. Claim 5 have been amended in an multiple dependent claim form to depend from either "claim 1 or claim 2." Claim 6 depend from Claim 5.

Withdrawal of the objection is respectfully requested.

Claims 1-4 stand objected under 35 U.S.C. § 102(b) based upon a public sale or sale of the invention, European Patent No. 0 689 303 (Pequet). The "et al." suffix appearing after a reference name is omitted.

Applicant respectfully asserts a technical argument that no grounds for the rejection "based upon a public sale or sale of the invention" have been properly established in the Office Action. For this reason, withdrawal of the improper rejection is respectfully requested.

In anticipation of a possible anticipatory rejection based on Pequet in the future, the following remarks are respectfully asserted to advance the prosecution of the present application.

With due respect, it appears that the Office Action has missed the point of the presently claimed invention and has compared the presently claimed invention with Pequet, which is not in fact highly relevant.

Pequet is all about synchronization, as indicated in col. 4, line 58 to col. 5, line 8:

> "This information indicates the beginning of time slots, frames and superframes, thus allowing a mobile station receiving this information to synchronise its operation to that of the base station, as well as frequency correction information allowing a mobile station to correct the frequency of their uplink and downlink channels, i.e. their local clock".

As pointed out in Pequet, col. 1, lines 30 to 35:

> "An object of the invention...is to allow mobile stations to exchange data with one another without the use of the base station infrastructure whilst the first mobile station is still able to listen to data being transmitted from the base station."

This objective of Pequet is achieved by the first mobile station being syncrhonised (col. 1, line 20) to the base station as described above and then being allocated a time slot (for example the i-th time slot) and frequency to receive data transmitted by the base station (col. 1, lines 23 to 25). The first mobile and a second mobile then adapt to use a different carrier wave frequency and time slot (k-th time slot). The above mechanism is defined in the first claim of Pequet, indicating it to be the essence of the method.

In the method of Pequet, the synchronization (col. 4, line 58 to col. 5, line 8) is a well-known method used in almost all TDMA cellular systems (as pointed out in col. 1, line 10). The inventive step lay in the adapting of mobiles to use a different time slot and frequency to exchange data, allowing the first mobile to continue to communicate to the base station without the time slot or frequency conflicting.

The above method in no way suggests the concept of a common calling channel via which mobile stations can transmit probe data to one another to obtain connectivity information relating to the availability of other mobile stations as called for in claim 1 of the present application.

In the method of the presently claimed invention, when mobile stations receive the synchronization transmissions and associated broadcast data, they utilize this information to locate a specific time slot and frequency or "calling channel" (also referred to as a random access channel or ORAVCH) usable by mobile stations to interact with one another. This is what is meant by "extracting data therefrom," i.e. extracting the data from the synchronization

transmissions which defines the broadcast control channel and at least one calling channel.

The mobile stations transmit so-called broadcast probe messages on the thus-defined calling channel which contains several parameters, such as transmission power, local background noise level and path loss data, and the mobile station identity as described in Appendix A of the present application.

In Pequet there is **no** disclosure of a common calling channel or the transmission of probe data on the calling channel that could be used to obtain connectivity information relating to the availability of other mobile stations.

The Examiner considers the concept of a calling channel and the transmission of data on such a calling channel to be disclosed by Pequet (col. 4, line 54 col. 5, line 28). This passage relates to the rebroadcast of synchronization information derived from the base station randomly by mobiles in a defined time slot and frame (see claims 2, 4, and 7 of Pequet). This serves an altogether different objective to the presently claimed transmission of probe data as it is used to propagate synchronization information outside of the coverage area of the base station, and not to obtain connectivity information relating to the availability of other mobile stations. The only information included in the broadcast synchronization information is a counter that is simply used to avoid rebroadcasting too many times thereby resulting in excessive error in the synchronization information (col. 2, line 56). The objective of this process is synchronization of the mobiles to the base station (col. 2, line 48).

The purpose of such synchronization is indicated in col. 4, line 58 to col.

5, line 8 of Pequet:

> "This information indicates the beginning of time slots, frames and superframes, thus allowing a mobile station receiving this information to synchronise its operation to that of the base station, as well as frequency correction information allowing a mobile station to correct the frequency of their uplink and downlink channels, i.e. their local clock."

The retransmission of synchronization information in Pequet has nothing to do with "probe data being used by mobile stations to obtain connectivity information relating to the availability of other mobile stations." This is evidenced by the fact that there is no mention or need for the address of the mobile station, or any other information that could be used to develop connectivity or availability information of other mobile stations, being included in such retransmissions. In the present invention, information relating to the identity of mobile stations is built in to the probe data (as described in Appendix A). The probe data is not used to synchronize mobile stations to the base station at all, as disclosed by Pequet, but for a completely different purpose.

In summary, the method of the presently claimed invention also involves the defining of channels etc. for use by mobile stations using data broadcast by the base station. However, the channels defined by the method of the presently claimed invention are very different and unrelated to what is described in Pequet. In Pequet, a channel is defined to rebroadcast base station synchronization information to mobile stations outside of the base station coverage. In the presently claimed invention, it is assumed that all mobile stations are within the area of coverage of the base station (see lines 8 and 9 of claim 1 as filed:)"...(receiving the synchronization transmissions at mobile stations within

the area of coverage..."). In the method of the presently claimed invention, there is thus no need to rebroadcast synchronization information as required in the system of Pequet. The synchronization transmissions contain data, which defines a broadcast control channel and at least one calling channel, the calling channel being used by mobile stations to transmit probe data to one another. The probe data is used by the mobile stations to obtain connectivity information relating to the availability of other mobile stations. There is simply no description or any suggestion of such process in Pequet.

One particular advantage of the method of the present invention lies in the reduction in the number of gradients, which must be calculated by each mobile station. As stated on page 4, paragraph 1, lines 10 to 17 of the present application, the mobile stations are able to utilize the synchronization and broadcast transmissions from the base stations to identify which base station coverage area they are in, and develop gradients to those base stations. This tends to significantly reduce the number of destinations that gradients have to be developed for. Another important feature arising out of the method of the present invention is mentioned on page 7, paragraph (3.), relating to paging and developing of gradients back to a particular mobile station.

In the light of the above discussion, we submit that it is clear that the present invention as claimed is novel and inventive in the light of the cited prior art reference.

For the reasons set forth above, Applicant respectfully submits that Claims 1-6, pending in this application, are in condition for allowance over the

cited reference. This amendment is considered to be responsive to all points raised in the Office Action. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter. Should the Examiner have any remaining questions or concerns, the Examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

Dated: January 6, 2004

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## APPENDIX OF ATTACHMENTS

Application S/N 10/315,382
Reply to Office Action of October 24, 2003

**Replacement Sheets of FIGS. 1-3, 4(a), 4(b), 5, 6(a), 6(b), 7-8, 9(a), 9(b), 10(a), 10(b), 11(a), and 11(b) (a total of 14 sheets of drawings)**

and

**Annotated Sheets Showing Changes of FIGS. 1-11 in Red (a total of 14 sheets of drawings)**